

REMARKS

Claims 1-5, 7, 9, and 11-14 are pending in the instant application. Claims 1 and 11 have been amended and Claims 6, 8, 10, and 15-21 have been canceled. No new claims have been added and no new matter is introduced by the amendments to the previously presented claims. Support for the amendments to the claims can be found throughout the specification and drawings, particularly Example 2, paragraphs 188-201, and Example 3, paragraphs 202-273 of the application.

Advisory Action

Applicants note that the claim amendments and remarks included in the Amendment filed September 28, 2007, have not been entered on the record. As a result of this, the Examiner's withdrawal of certain claim objections and claim rejections described in the Advisory Action issued October 19, 2007, also have not been entered on the record. Accordingly, Applicants reiterate those previously un-entered amendments and remarks herein, along with additional amendments and remarks that Applicants submit counter the rejections the Examiner maintained in the October 19, 2007, Advisory Action.

Claim Objections

Claim 10 is objected to by the Examiner due to its recitation of "anthocyan" in line 4 and repetition of "line" in line 2. Applicants respectfully submit that Claim 10 has been canceled and thus this objection has been rendered moot. Furthermore, as Claim 1 now incorporates the limitations of canceled Claim 10, Applicants note that this incorporation conforms with the Examiner's comments and thus re-application of this objection is unnecessary.

Claims Rejections

Rejection Under 35 U.S.C. § 112, second paragraph

Claims 10 and 11 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite in their recitations of “R-nj” and “R-nj::Ac.” In particular, the Examiner argues that the Applicant has not cited sufficient examples in support of their argument that “R-nj” and “R-nj::Ac” are well known in the art and therefore asks that the be recited in their full-form.

As noted above, Applicants have canceled Claim 10 and introduced the limitations of that claim into Claim 1. Although the Examiner’s rejection of Claim 10 has been rendered moot by cancellation of that claim, Applicants include the following discussion in order to avoid re-application of this rejection to Claim 1 as currently amended.

Applicants reiterate that R-nj is term that is well known in the art. In addition to the original disclosure of the R-nj locus in the reference included with the Applicants’ previous response, Applicants direct the Examiner’s attention to the following references that discuss the R-nj chromosomal locus: Dellaporta et al., Plenum Press:263-282 (1988), “R-navajo (R-nj): Isolated from the Cudu strain, this stable allele is distinguished most obviously by a solid patch of aleurone pigment in the crown region of the kernal.”; Ludwig et al., PNAS, 86, 7092-7096 (1989), “Recently, the R-nj gene was cloned by transposon tagging and shown to be homologous with other members of the R gene family. In the study reported here, the R-nj clone was used to isolate genomic and cDNA clones of the Lc member of the R gene family.” (internal citation omitted); Li et al., Genetics 159:1727-1740 (2001), “R-nj:Cudu (Navajo) controls pigmentation in the crown of the kernal, the root, coleoptile, scutellar node, silk and anthers...”; and Walker et al., Genetics, 146(2):681-93 (1997), “At the r locus, both simple and complex gene arrangements

are found. In simple r alleles, e.g., R-nj, a single gene is present...” (internal citation omitted). Both Dellaporta et al. and Ludwig et al. were provided in the Information Disclosure Statement submitted October 14, 2004, and courtesy copies of those references along with copies of Li et al. and Walker et al. are attached for the Examiner’s convenience. In light of the extensive use of the term “R-nj” in the art without any additional explanation of its meaning, Applicants respectfully request the Examiner reconsider this rejection.

Applicants also respectfully direct the Examiner’s attention to http://www.maizegdb.org/maize_nomenclature.php (“A Standard For Maize Genetics Nomenclature” From MNL 69:182-184 (1995), as updated Sep 1996; Apr 2000; Apr 2002; Oct 2006), a hard copy of which is attached for the Examiner’s convenience, which describes in detail the nomenclature generally employed in this field and which the Applicants have incorporated into the instant claims. Specifically, Applicants note that section 7 entitled “MUTATIONS RESULTING FROM TRANSPOSABLE ELEMENT INSERTIONS” states that “When the transposable element insertion [Ac, Ds, Spm(En), dSpm(I), Mu1..MuX, etc.] is known, it is suggested that this be indicated by a double colon following the allele as wx-m1::Ds1.” Accordingly, Applicants recitation of “R-nj::Ac” employs the standard nomenclature used within the field for expressing an allele where an Ac element is inserted into the R-nj locus. In light of the amendments to the claims and the well known nature of the recitations in the art, Applicants respectfully request withdrawal of the instant rejection.

Claims 10 and 11 stand further rejected under 35 U.S.C. § 112, second paragraph, as indefinite in their recitation of “including the embryo (R-nj::AC allele)”, which the Examiner argues is confusing.

Without acquiescing in the Examiner's position that the recited phrase is indefinite, and solely in the interest of expediting prosecution of the instant application, Applicants have amended Claim 1 to reflect the Examiner's comments regarding Claim 10. Applicants respectfully submit that the amended recitation of "R-nj::Ac allele" merely represents an allele including an active Ac sequence within the R-nj chromosomal locus as discussed above.

Claims 10 and 11 stand further rejected under 35 U.S.C. § 112, second paragraph, as indefinite in their recitation of "Ac located in R-nj chromosomal region." Specifically, the Examiner argues that the "R-nj chromosomal region" is not defined and that the metes and bounds of "located" are not defined.

Without acquiescing in the Examiner's position that the recited phrase is indefinite, and solely in the interest of expediting prosecution of the instant application, Applicants have amended Claim 1 to reflect the Examiner's comments regarding Claim 10. Applicants respectfully submit that the bounds of the "R-nj chromosomal locus" are well known in the art as evidenced by Ludwig et al., PNAS, 86, 7092-7096 (1989). Furthermore, applicants have amended the claim such that the Ac sequence is within that locus, which clearly defines that the Ac sequence is found within the bounds identified above.

Rejection Under 35 U.S.C. § 112, first paragraph (Enablement)

Claims 1-7 and 9-14 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one of skill in the art which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. Specifically, the Examiner argues that the

instant claims are directed to mobilizable sequences from any type of transposon, while the application only enables mobilizing sequences derived from maize transposons.

Without acquiescing in the Examiner's position, and only in the interest of expediting prosecution of this application, Applicants have amended the claims such that they are directed to mobilizable sequences derived from maize transposons. In light of the foregoing, Applicants contend that the claims, as currently amended, are fully enabled by the specification and thus withdrawal of the instant claims is respectfully requested.

Rejections Under 35 U.S.C. § 102(b)

Claims 1-4 and 6-8 stand rejected under 35 U.S.C. § 102(b) as anticipated by Perez et al., WO 98/38323. In particular, the Examiner alleges that the method for obtaining a transgenic monocotyledon plant containing a gene of interest that is free of ancillary sequence, contains each and every limitation of the rejected claims.

Applicants respectfully traverse the foregoing rejection and assert that the instant claims, as currently amended, are not anticipated by Perez et al. A proper rejection of the claims requires the Examiner to show that each and every element as set forth in the claim is found, either expressly or inherently, in the asserted reference.¹ This has not been done.

Applicants have amended Claim 1 to incorporate the limitations of previously presented Claim 10. As the Examiner has conceded that Claim 10 is not anticipated by Perez et al., Applicants respectfully submit that the instant amendment renders this rejection moot. In light of the foregoing, Applicants request withdrawal of this rejection.

¹ See, *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."

Claims 1-3 and 6-8 stand rejected under 35 U.S.C. § 102(b) as anticipated by Yoder et al., WO 98/38323. In particular, the Examiner alleges that the method disclosed therein for obtaining a transgenic monocotyledon plant containing a gene of interest that is free of ancillary sequence, contains each and every limitation of the rejected claims.

Applicants respectfully traverse the foregoing rejection and assert that the instant claims are not anticipated by Yoder et al. As pointed out above, a proper rejection of the claims requires the Examiner to show that each and every element as set forth in the claim is found, either expressly or inherently, in the asserted reference. This has not been done.

As was the case of Perez et al., the Examiner has conceded that Yoder et al. fail to teach the limitations of Claim 10, which have been incorporated into the rejected claims by the instant amendment. Since, as above, each and every element of the rejected claims is not found in Yoder et al, as required under 35 U.S.C. § 102(b), reconsideration and withdrawal of the instant rejection is requested.

Rejections Under 35 U.S.C. § 103(a)

Claims 9 and 13-14 stand rejected under 35 U.S.C. § 103(a), as unpatentable over Perez et al., in light of Ishida et al., Nature Biotech. 14(6):745-750, 1996). In particular, the Examiner argues that it would have been prima facie obvious to one skilled in the art at the time the invention was made to modify Perez et al.'s method for obtaining a transgenic corn plant containing a gene of interest that is free from foreign ancillary sequence (as discussed above) by using inbred line A188 taught by Ishida et al. However, the Examiner has already conceded that the cited art do not teach or suggest the limitations of Claim 10. As those limitations have been incorporated into the instantly rejected claims (via their ultimate dependency from Claim 1),

Applicants submit that the Examiner has failed to establish a prima facie case of obviousness and therefore withdrawal of the instant rejection is respectfully requested.

Conclusion

Entry of the foregoing amendments and remarks into the file of the above-identified application is respectfully requested. An early allowance is earnestly sought. To expedite allowance of this application, the Examiner is invited to telephone the undersigned if the Examiner believes a telephone call would be helpful in advancing prosecution.

Respectfully submitted,



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